

Des 1800182

Appendix G

Public Involvement

**(This appendix will be updated after the public
involvement process is complete)**

July 2, 2021

NOTICE OF SURVEY
(Sample Letter)



RE: HMA Overlay Project along SR 14 in Fulton and Pulaski Counties
INDOT DES Number: 1800182

Dear Property Owner:

Our information indicates that you own or occupy property near the subject proposed highway project. Our employees will be performing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is permitted by law per Indiana Code IC 8-23-7-26. They will show you their identification if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage, we generally do not know what effect, if any, our project can eventually have on your property. If it is determined later that your property is involved, someone representing INDOT will contact you with additional information.

The survey work will include mapping the location of features such as trees, buildings, fences and drives as well as possible soil sampling. If required on your property, the soil sampling will be shallow (typically less than 1 ft deep) and be limited to approximate 1 ft diameter holes. Soil and sod (if in a yard) will be replaced after sampling is complete. This survey is needed for the proper planning and design of the project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If problems do occur, please contact our field crew or contact me at the telephone number or address shown above.

Sincerely,

Andrew V. Maiin
Director of Operations

Des 1800182

Appendix H

Air Quality

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Performance Measure Impacted: Reliability and Freight Reliability																		
Comments:No MPO Adding funds to PE FY20 per actual contract amount. Adding \$82,800.00 federal and \$20,700 to local.																		
Indiana Department of Transportation	41443 / 1800182	Init.	SR 14	HMA Overlay, Structural	From the N Jct of US 35 to SR 17 - FDR	LaPorte	8.598	STBG		Road Construction	CN	\$6,742,079.20	\$1,685,519.80			\$30,000.00	\$8,397,599.00	
										Road Consulting	PE	\$852,000.00	\$213,000.00	\$572,000.00			\$493,000.00	
										Road ROW	RW	\$80,000.00	\$20,000.00			\$100,000.00		
Performance Measure Impacted: Pavement Condition																		
Indiana Department of Transportation	42212 / 1900817	A 01	SR 114	Bridge Deck Patching	Over MP Hill Ditch, 0.89mi W of US 421	LaPorte	0	STBG	\$196,113.00	Bridge Construction	CN	\$115,290.40	\$28,822.60		\$144,113.00			
										Bridge Consulting	PE	\$41,600.00	\$10,400.00	\$40,000.00	\$12,000.00			
Performance Measure Impacted: Bridge Condition																		
Comments:No MPO. Please amend all phases into the STIP.																		
Indiana Department of Transportation	42434 / 1703034	A 22	SR 14	Small Structure Replacement	2.8mi E of US 35	LaPorte	0	STBG	\$765,233.00	Bridge Construction	CN	\$277,010.40	\$69,252.60				\$20,000.00	\$326,263.00
										Bridge Consulting	PE	\$335,176.00	\$83,794.00		\$390,000.00			\$28,970.00
Performance Measure Impacted: Bridge Condition																		
Comments:No MPO. Amend FY21 PE \$390,000, FY23 CN \$20,000. FY24 PE and CN ?Phase is illustrative of FY2024.?																		
Indiana Department of Transportation	42456 / 1900065	A 15	US 421	HMA Overlay Minor Structural	US 421 from S JCT of SR 14 to N JCT of SR 14	LaPorte	2.02	NHPP	\$1,647,842.00	Road Construction	CN	\$1,086,633.60	\$271,658.40				\$75,000.00	\$1,283,292.00
										Road Consulting	PE	\$231,640.00	\$57,910.00		\$189,550.00			\$100,000.00
Performance Measure Impacted: Pavement Condition																		
Comments:No MPO. Amend FY21 PE \$189,550 and FY24 PE/CE \$100,000 and FY23 CN \$75,000 and FY24 CN \$1,283,292. FY24 CN is for illustrative purpose only.																		
Indiana Department of Transportation	43014 / 2000795	A 22	SR 119	Bridge Deck Overlay	SR 119 over INDIAN CREEK, 02.62 N SR 16	LaPorte	0	STBG	\$558,983.00	Bridge Construction	CN	\$333,186.40	\$83,296.60				\$10,000.00	\$406,483.00
										Bridge Consulting	PE	\$114,000.00	\$28,500.00		\$85,500.00			\$57,000.00
Performance Measure Impacted: Bridge Condition																		
Comments:No MPO. 2000795, Amend FY21 PE																		
Indiana Department of Transportation	43330 / 2002292	A 36	SR 39	Small Structure Replacement	SR 39, 2.52 N JCT SR 14	LaPorte	0	STBG	\$281,478.00	Bridge Construction	CN	\$8,000.00	\$2,000.00				\$10,000.00	
										Bridge Consulting	PE	\$24,000.00	\$6,000.00			\$30,000.00		
Performance Measure Impacted: Bridge Condition																		
Comments:No MPO. Amend FY22 PE and FY23 CN.																		

Des 1800182

Appendix I

Additional Studies and Information

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated July 2020)

ProjectNumber	SubProjectCode	County	Property
1800085	1800085	Fulton	Lakeview Park
1800203	1800203	Fulton	Akron City Park/ Pike Memorial Park
1800171	1800171O	Pulaski	Tippecanoe State Park
1800304	1800304D	Pulaski	Berns-Meyer
1800312	1800312Q	Pulaski	Tippecanoe River State Park
1800327	1800327K	Pulaski	Tippecanoe River State Park
1800361	1800361	Pulaski	Tippecanoe River State Park & Nature Preserve
1800363	1800363FF	Pulaski	Tippecanoe River State Park
1800413	1800413A	Pulaski	Berns Meyer Nature Preserve
1800413	1800413U	Pulaski	Tippecanoe County State Park
1800434	1800434A	Pulaski	Tippecanoe River State Park
1800618	1800618	Pulaski	Winamac Town Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination

Prj. 1800182 Structure Replacements					
Proposed Str. Number	CLV #	Existing Structure (Need Length)	Proposed Structure (size, length, material)	Longitude	Latitude
100	CLV-014-066-49.46	46-ft long, 15-in diameter CMP	Replace with 48-ft long, 30-in x19-in Smooth Elliptical Pipe (SCEP)with end sections and 4-in sump and revetment riprap added at end	41.05563	-86.5604
101	CLV-014-066-49.61	44-ft long, 12-in diameter Corrugated Plastic Pipe (CPP)	Replace with 44-ft long, 21-in diameter Smooth Circular Pipe (SCP) with end sections with 3-in sump and Class 1 riprap added to end	41.05577	-86.5577
102A		44-ft long, 15-in diameter CMP	Replace with 44-ft long, 24-in diameter pipe	41.05565	-86.5504
102B		15-ft long, 24-in diameter Reinforced Concrete Pipe (RCP)	Replace with 15-foot long, 24-in diameter pipe and manhole structure	41.05583	-86.5504
103	CLV-014-066-50.11	46-ft long, 12-in diameter CMP	Replace with 48-foot long, 15-in diameter SCP or CPP and revetment riprap	41.0558	-86.5485
104	CLV-014-066-50.29 LT	51-ft long, 12-in diameter PVC	Replace with 51-ft long, 15-in diameter SCP or CCP with end sections and revetment riprap	41.05579	-86.5449
105	CLV-014-066-50.29 RT	53-ft long, 12-in diameter PVC	Replace with a 53-ft long, 15-in diameter SCP or CCP with end sections and revetment riprap	41.05567	-86.5448
106	CLV-014-066-50.33	46-ft long, 18-in diameter CMP	Replace with 47-ft long, 18-in diameter SCP with end sections and revetment riprap	41.05565	-86.5442
107	CLV-014-066-50.55	42-ft long, 12-in diameter CMP	Replace with 49-ft long, 15-in diameter SCP with 2-in sump with two pipe end sections and	41.0557	-86.5398
108	CLV-014-066-50.93	42-ft long, 15-in diameter CMP	Replace with 48-ft long, 15-in diameter SCP with end sections, 1-in sump, and revetment riprap	41.05578	-86.5324
109	CLV-014-066-51.07	45-ft long, 18-in diameter CMP	Replace with a 46-ft long, 18-in diameter SCP or CCP with end sections and revetment riprap	41.0558	-86.5297
110A		12-in diameter CMP	Replace with a 92-foot long, 15-in diameter pipe	41.05567	-86.5262
110B		12-in diameter CMP	Replace with a 66-ft long, 15-in diameter pipe	41.05574	-86.526
110C		12-in diameter CMP	Replace with a 58-ft long, 15-in diameter pipe	41.05567	-86.5259
111A	CLV-014-066-52.60	54-foot long, 12-in diameter CPP	Replace with 52-ft long, 18-in diameter SCP with end sections and revetment riprap	41.05538	-86.5009
111B	CLV-014-066-52.81	49-ft long, 12-in diameter CMP	Replace with 49-ft long, 18-in diameter SCP with 1-in sump and revetment riprap	41.05538	-86.4969

111C	CLV-014-066-52.82	44-ft long, 12-in diameter CMP	Replace with 44-ft long, 15-in diameter SCP with end sections and revetment riprap	41.05545	-86.4966
112	CLV-014-066-53.52	45-ft long, 18-in diameter CMP	Replace with 47-ft long, 18-in diameter SCP with end sections and revetment riprap	41.0554	-86.4832
114	CLV-014-025-55.40	60-ft long, 18-in diameter CMP	Replace with 63-ft long, 18-in diameter SCP or CCP with end sections and revetment riprap	41.05531	-86.4469
115	CLV-014-025-55.41	60-ft long, 18-in diameter CMP	Replace with 65-ft long, 18-in diameter SCP or CCP with end sections, 4-in sump, and revetment riprap	41.05532	-86.4468
116	CLV-014-025-55.47	42-ft long, 15-in diameter PVC	Replace with 43-ft long, 34-in by 22-in SCEP with end sections, 3-in sump, and Class 1 riprap	41.05517	-86.4453
117	CLV-014-025-55.56	47-ft long, 15-in diameter CMP	Replace with 47-ft long, 15-in diameter SCP or CCP with end sections and revetment riprap	41.05523	-86.4433
118	CLV-014-025-55.70	41-ft long, 15-in diameter CMP	Replace with 44-ft long, 18-in diameter SCP with end section, 2-in sump, and revetment riprap	41.05512	-86.4404
119	CLV-014-025-56.24	54-ft long, 12-in diameter CMP	Replace with 54-ft long, 18-in diameter SCP with end sections and revetment riprap	41.055	-86.4298

Environmental Justice Analysis for SR 14 Roadway Improvements (Des. 1800182)						
		COC1	COC2	AC1	AC2	AC3
		Fulton County, Indiana	Pulaski County, Indiana	Census Tract 9533, Fulton County, Indiana	Census Tract 9589, Pulaski County, Indiana	Census Tract 9590, Pulaski County, Indiana
LOW-INCOME						
B 17001001	Population for whom poverty status is determined: Total	19,688	12,422	1,893	2,731	3,433
B 17001002	Population for whom poverty status is determined: Income in past 12 months below poverty	2,442	1,521	176	289	558
Percent Low-Income		12.4%	12.2%	9.3%	10.6%	16.3%
125 Percent of COC		15.5%	15.3%	AC<125% COC	AC<125% COC	AC>125% COC
Potential Low-Income EJ Impact?				No	No	Yes
MINORITY						
B 03002001	Total population: Total	20,096	12,559	1,893	2,742	3,504
B 03002002	Total population: Not Hispanic or Latino	19,051	12,181	1,879	2,670	3,383
B 03002003	Total population: Not Hispanic or Latino; White alone	18,440	11,821	1,818	2,580	3,206
B 03002004	Total population: Not Hispanic or Latino; Black or African American alone	186	24	26	0	24
B 03002005	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	63	20	0	14	0
B 03002006	Total population: Not Hispanic or Latino; Asian alone	84	81	0	6	75
B 03002007	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	11	19	0	0	0
B 03002008	Total population: Not Hispanic or Latino; Some other race alone	15	0	5	0	0
B 03002009	Total population: Not Hispanic or Latino; Two or more races	252	216	30	70	78
B 03002010	Total population: Hispanic or Latino	1,045	378	14	72	121
B 03002011	Total population: Hispanic or Latino; White alone	424	119	8	4	4
B 03002012	Total population: Hispanic or Latino; Black or African American alone	0	0	0	0	0
B 03002013	Total population: Hispanic or Latino; American Indian and Alaska Native alone	0	11	0	0	0
B 03002014	Total population: Hispanic or Latino; Asian alone	6	0	0	0	0
B 03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0	0	0	0
B 03002016	Total population: Hispanic or Latino; Some other race alone	550	185	2	48	74
B 03002017	Total population: Hispanic or Latino; Two or more races	65	63	4	20	43
Number Non-White/Minority (P007001-P007003)		1,656	738	75	162	298
Percent Non-White/Minority		8.2%	5.9%	4.0%	5.9%	8.5%
125 Percent of COC		10.3%	7.4%	AC<125% COC	AC>125% COC	AC>125% COC
Potential Minority EJ Impact?				No	No	Yes

SR 14 Roadway Reconstruction, Des. 1800182 EJ Analysis County Map (COC)

 Project Alignment

 Search

Total: **Estimate** in **2 Geos** in **2019**

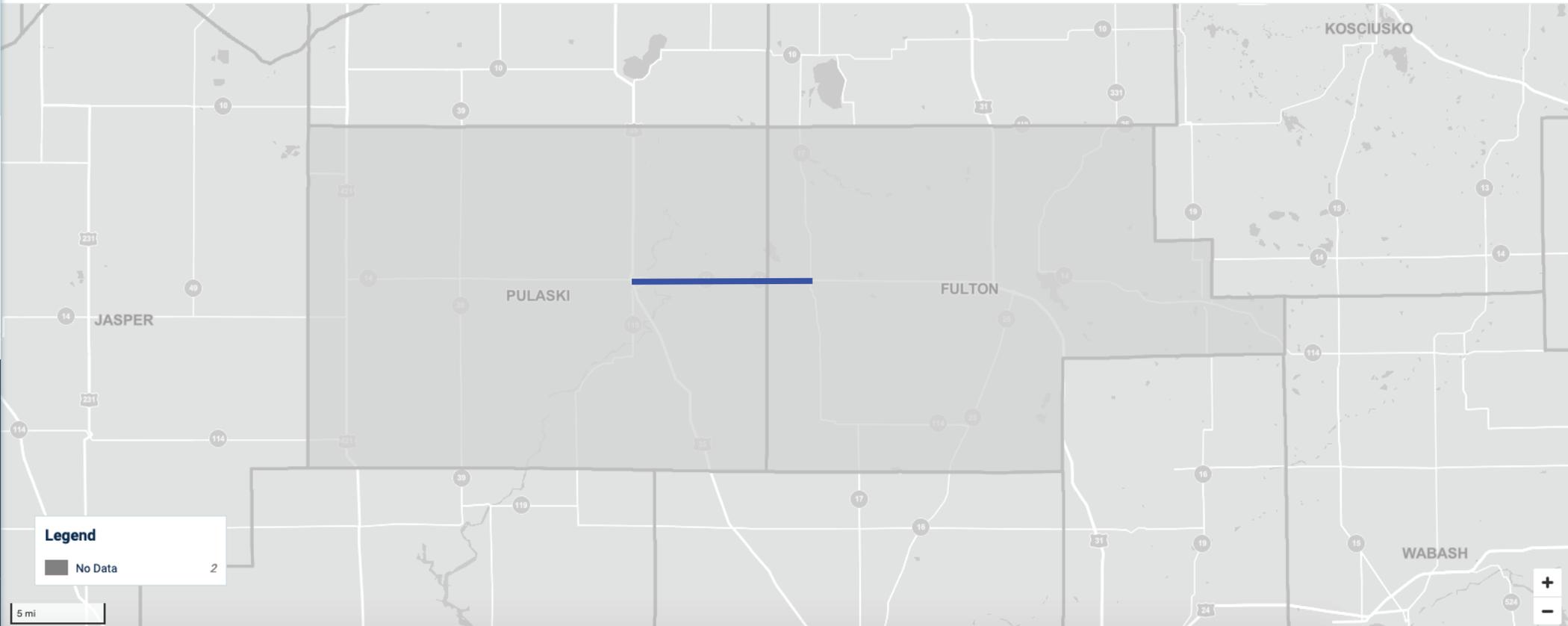
Survey/Program: American Community Survey

Product: 2019: ACS 1-Year Estimates Detailed Tables

CUSTOMIZE MAP

Geographies: County

-  Select
-  Clear Geos
-  Table
-  Notes



SR 14 Roadway Reconstruction, Des. 1800182 EJ Analysis Census Tracts Map (AC)

Project Alignment

Total: --Estimate in 3 Geos in 2019

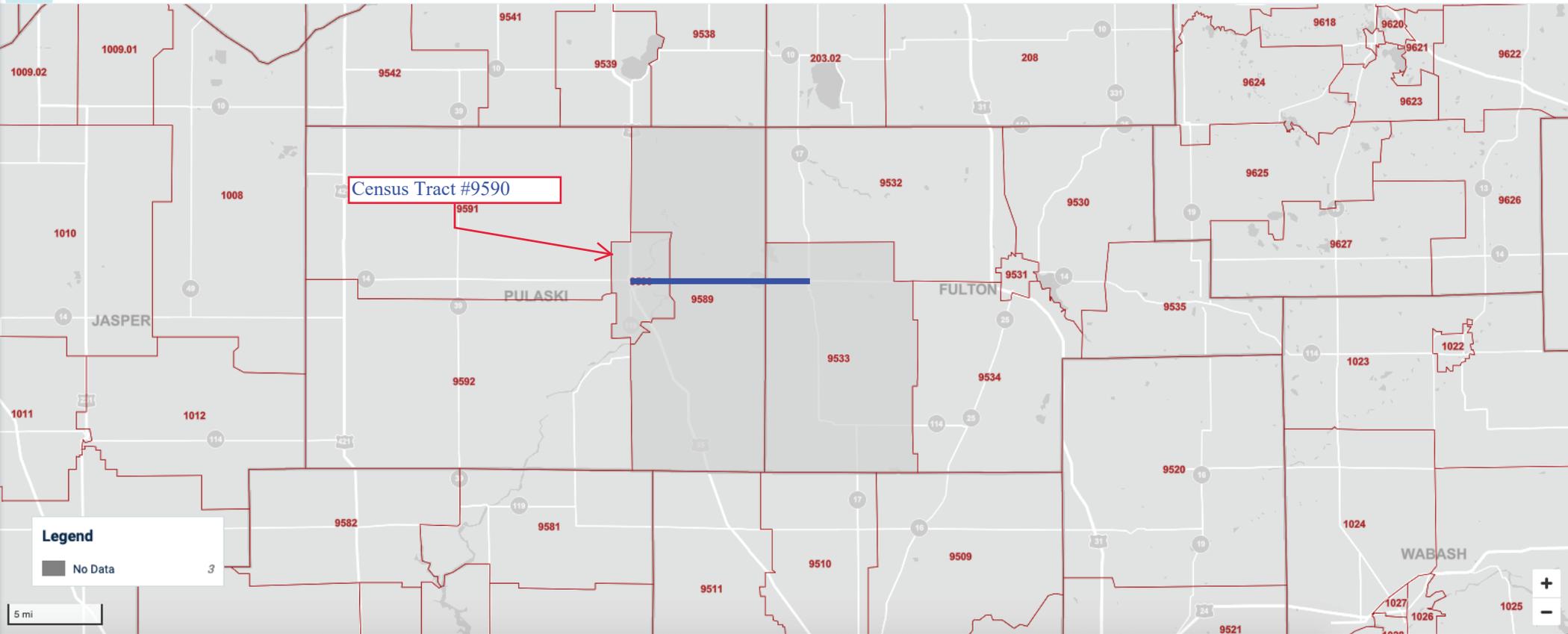
Survey/Program: American Community Survey

Product: 2019: ACS 1-Year Estimates Detailed Tables

CUSTOMIZE MAP

Geographies: Census Tract

Select Clear Geos Table Notes



HISPANIC OR LATINO ORIGIN BY RACE

Survey/Program: American Community Survey Universe: Total population TableID: B03002 Product: 2019: ACS 5-Year Estimates Detailed Tables

Notes Selections 2 Geos Years Topics Surveys Codes 123 Hide Transpose Margin of Error Restore Excel Download More Data Map

Label	Fulton County, Indiana		Pulaski County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	20,096	*****	12,559	*****
▼ Not Hispanic or Latino:	19,051	*****	12,181	*****
White alone	18,440	±19	11,821	±19
Black or African American alone	186	±54	24	±23
American Indian and Alaska Native alone	63	±24	20	±24
Asian alone	84	±54	81	±80
Native Hawaiian and Other Pacific Islander alone	11	±17	19	±28
Some other race alone	15	±19	0	±19
▼ Two or more races:	252	±66	216	±84
Two races including Some other race	0	±22	7	±17
Two races excluding Some other race, and three or more races	252	±66	209	±90
▼ Hispanic or Latino:	1,045	*****	378	*****
White alone	424	±188	119	±72
Black or African American alone	0	±22	0	±19
American Indian and Alaska Native alone	0	±22	11	±17
Asian alone	6	±13	0	±19
Native Hawaiian and Other Pacific Islander alone	0	±22	0	±19
Some other race alone	550	±211	185	±83
▼ Two or more races:	65	±71	63	±64
Two races including Some other race	65	±71	63	±64
Two races excluding Some other race, and three or more races	0	±22	0	±19

HISPANIC OR LATINO ORIGIN BY RACE

Survey/Program: American Community Survey Universe: Total population TableID: B03002 Product: 2019: ACS 5-Year Estimates Detailed Tables

Notes Selections 3 Geos Years Topics Surveys Codes 123 Hide Transpose Margin of Error Restore Excel Download More Data Map

Label	Census Tract 9533, Fulton County, Indiana		Census Tract 9589, Pulaski County, Indiana		Census Tract 9590, Pulaski County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	1,893	±243	2,742	±268	3,504	±121
▼ Not Hispanic or Latino:	1,879	±241	2,670	±255	3,383	±133
White alone	1,818	±236	2,580	±245	3,206	±149
Black or African American alone	26	±34	0	±12	24	±23
American Indian and Alaska Native alone	0	±12	14	±23	0	±12
Asian alone	0	±12	6	±10	75	±81
Native Hawaiian and Other Pacific Islander alone	0	±12	0	±12	0	±12
Some other race alone	5	±7	0	±12	0	±12
▼ Two or more races:	30	±29	70	±90	78	±58
Two races including Some other race	0	±12	0	±12	7	±17
Two races excluding Some other race, and three or more races	30	±29	70	±90	71	±53
▼ Hispanic or Latino:	14	±14	72	±53	121	±69
White alone	8	±11	4	±13	4	±8
Black or African American alone	0	±12	0	±12	0	±12
American Indian and Alaska Native alone	0	±12	0	±12	0	±12
Asian alone	0	±12	0	±12	0	±12
Native Hawaiian and Other Pacific Islander alone	0	±12	0	±12	0	±12
Some other race alone	2	±5	48	±46	74	±69
▼ Two or more races:	4	±6	20	±26	43	±58
Two races including Some other race	4	±6	20	±26	43	±58
Two races excluding Some other race, and three or more races	0	±12	0	±12	0	±12

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey

Product: 2019: ACS 5-Year Estimates Detailed Tables

TableID: B17001

Universe: Population for whom poverty status is determined

CUSTOMIZE TABLE

Label	Fulton County, Indiana		Pulaski County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	19,688	±210	12,422	±81
▼ Income in the past 12 months below poverty level:	2,442	±451	1,521	±367
▼ Male:	1,014	±227	612	±167
Under 5 years	72	±48	54	±40
5 years	42	±49	8	±12
6 to 11 years	142	±71	42	±29
12 to 14 years	34	±34	74	±64
15 years	54	±69	4	±9
16 and 17 years	23	±28	5	±7
18 to 24 years	62	±59	107	±64
25 to 34 years	105	±66	78	±53
35 to 44 years	51	±30	60	±42
45 to 54 years	156	±85	53	±33
55 to 64 years	125	±66	80	±43
65 to 74 years	115	±51	33	±26
75 years and over	33	±27	14	±17
▼ Female:	1,428	±298	909	±232
Under 5 years	71	±59	38	±32
5 years	17	±22	14	±17
6 to 11 years	84	±65	101	±73
12 to 14 years	28	±22	6	±10
15 years	6	±9	8	±13
16 and 17 years	83	±104	59	±51
18 to 24 years	236	±183	61	±36

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey Universe: Population for whom poverty status is determined TableID: B17001 Product: 2019: ACS 5-Year Estimates Detailed Tables

Notes Selections 3 Geos Years Topics Surveys Codes 123 Hide Transpose Margin of Error Restore Excel Download More Data Print Map

Label	Census Tract 9533, Fulton County, Indiana		Census Tract 9589, Pulaski County, Indiana		Census Tract 9590, Pulaski County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	1,893	±243	2,731	±267	3,433	±135
▼ Income in the past 12 months below poverty level:	176	±62	289	±167	558	±195
▼ Male:	88	±41	112	±71	226	±99
Under 5 years	11	±11	0	±12	7	±11
5 years	4	±4	0	±12	8	±12
6 to 11 years	9	±8	13	±15	9	±9
12 to 14 years	3	±4	40	±48	32	±39
15 years	0	±12	0	±12	0	±12
16 and 17 years	0	±12	0	±12	5	±7
18 to 24 years	0	±12	0	±12	100	±63
25 to 34 years	12	±11	47	±42	8	±10
35 to 44 years	2	±3	2	±6	15	±19
45 to 54 years	5	±5	8	±12	33	±29
55 to 64 years	17	±19	1	±3	9	±10
65 to 74 years	19	±19	1	±3	0	±12
75 years and over	6	±8	0	±12	0	±12
▼ Female:	88	±35	177	±109	332	±124
Under 5 years	0	±12	0	±12	8	±12
5 years	3	±4	0	±12	0	±12
6 to 11 years	10	±9	61	±62	13	±15
12 to 14 years	0	±12	0	±12	0	±12
15 years	0	±12	0	±12	8	±13

Subject: Des 1800182 SR 14 EJ analysis
Date: Friday, July 16, 2021 at 9:30:28 AM Eastern Daylight Time
From: Bales, Ronald
To: Erin Mulryan
Attachments: EJ analysis Des 1800182 SR 14 Pulaski_Fulton counties_ESD Comments.pdf, Copy of EJ Analysis_1800182 SR 14_ESDcomments.xls

INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. With the information provided, the project requires minimal right-of-way, require no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low incomes populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

Ron Bales

INDOT-Environmental Services Division

Office: (317) 515-7908

Email: rbales@indot.in.gov



INDIANA DEPARTMENT OF TRANSPORTATION

LaPorte District
315 E. Boyd Boulevard
LaPorte, Indiana, 46352

PHONE: (855) 464-6368

Eric Holcomb, Governor
Joe McGuinness, Commissioner

ENGINEER'S REPORT

ROAD PROJECT

SR 14 from the North Junction of US 35 to SR 17

PROJECT NUMBER: 1800182

CONTRACT: RS-41443

Prepared by LaPorte District Technical Services Division
November, 2018

www.in.gov/dot/
An Equal Opportunity Employer

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ENGINEERING ASSESSMENT REPORT

PROJECT NUMBER: 1800182

EXISTING BRIDGE FILE NUMBER: N/A

**ROUTE IDENTIFICATION AND FEATURE CROSSED:
SR 14 from the North Junction of US 35 to SR 17**

**PROJECT LOCATION: Monroe, Harrison, and Union Townships, Pulaski and Fulton Counties
Section 12, Twp 30 N, Range 2 W
Sections 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18, Twp 30 N, Range 1 W
Sections 7, 8, 9, 16, 17, and 18, Twp 30 N, Range 1 E**

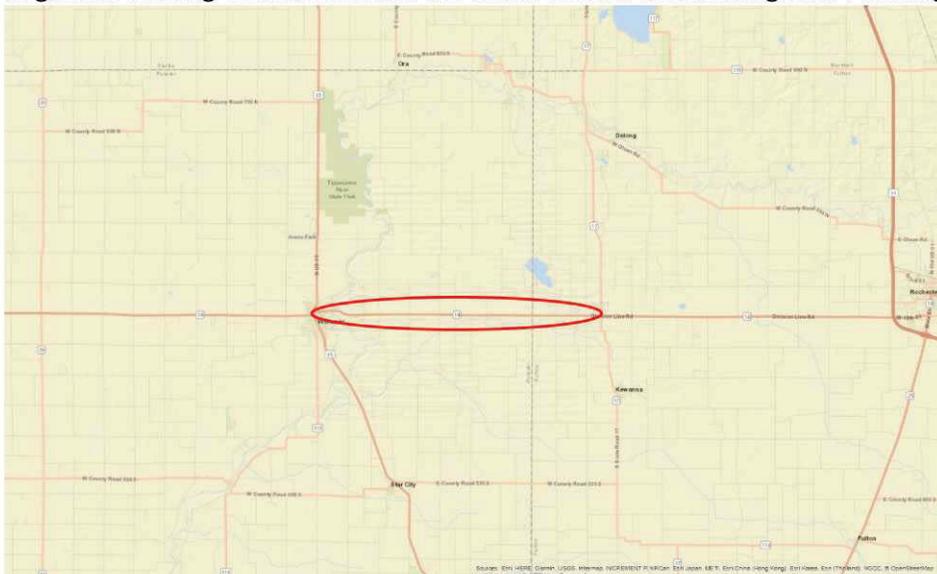
REFERENCE POST: 48+00 to 56+56

Purpose of Report

The purpose of this report is to document the engineering assessment phase of project development, including all coordination that has been completed in preparation for this bridge project. This document outlines the proposal and is intended to serve as a guide for subsequent survey, design, environmental, right of way and other project activities leading to construction. The preferred alternative identified in this document is considered predecisional, pending the outcome of environmental studies.

Project Location

This project is located on SR 14 from the North Junction of US 35 at reference post 48+00 to SR 17 at reference post 56+56 in Pulaski and Fulton Counties. The GPS coordinates are 41°03'19" North and 86°30'20" West. The project is in the Indiana Department of Transportation's LaPorte District, Monticello Sub-District. This location is in a rural planning organization region, the Kankakee-Iroquois Regional Planning Commission and the North Central Indiana Regional Planning Council.



Project Need and Purpose

The purpose of this project is to achieve a sufficient pavement structure to address base and subbase concerns, providing a stable roadbed and facilitate 15 to 20 years of useful pavement service life.

The need of this project is to address the extensive light to moderate rutting, due mainly to the higher than normal truck traffic (22% of AADT). The rutting is a result of issues within the base and/or subbase of the roadbed. As a result of the significant rutting, this roadway section has been experiencing accelerated deterioration, which will continue if the roadbed issues are not addressed. There is a moderate amount of severe transverse cracking in this full depth HMA section. The thermal cracking present is spaced closely, indicating it is toward the end of its service life.

Project History

The roadway was constructed from the North Junction of US 35 to 1.3 miles east of the North Junction of US 35 was constructed with concrete in 1953. The concrete pavement was overlaid with asphalt in 1999. The roadway from 1.3 miles east of the North Junction of US 35 to SR 17 was constructed with asphalt in 1933 and resurfaced in 1938, 1961, and 1981.

Existing Facilities

The existing roadway facility is classified as a rural minor arterial and is part of the 3R roadway network and is not part of the US National Highway System (NHS). The roadway is on the National Truck Network. The posted speed limit at the project location is 55 mph.

Roadway

The existing roadway is 28 feet wide through the project limits. The existing roadway consists of 12 foot travel lanes and 2 foot paved shoulders and 8 foot useable shoulders. The existing shoulder widths are acceptable.

Roadway Information			
Geometric Criteria			
Design Speed	55 mph	Functional Class	Minor Arterial
Design Criteria	3R (Non Freeway)	Rural/Urban	Rural
Terrain	Level	Access Control	None
Approach Cross Section			
IDM Figure Reference	IDM 55-3A		
Travel Lane Count	2	Travel Lane Width	12 (existing) 12 (proposed)
Shoulder Width (Usable)	8 (exist) 8 (proposed)	Shoulder Width (Paved)	2 (exist) 2 (proposed)
Mainline Pavement	Asphalt	Shoulder Pavement	Asphalt (exist) Asphalt (proposed)
Alignment			
Horizontal	Tangent	Vertical	Match existing

Road History

SR 14 Pavement History Within Project Limits		
Year	Width	Type of Work
1933	18	Asphalt Paving
1938	22	Asphalt Resurface
1953	36	Concrete Paving
1961	22	Asphalt Resurface
1891	22	Asphalt Resurface
1999	36	Asphalt on Concrete

Bridges and CulvertsBridges

The bridge over the Tippecanoe River, NBI 3730, Structure 014-66-3459B. There currently are no active projects programmed for this bridge.

Large Culverts

There are two large culverts within the project limits. The first culvert 014-66-49.00 is a 4' diameter corrugated metal pipe with an overall rating of 5 is scheduled to be replaced in 2020 with Des 1172237. The second culvert 014-66-49.00 is a 4' diameter corrugated metal pipe with an overall rating of 5 and should be replaced as part of this project and may require a separate Des Number.

Small Culverts

Attached is a list of small culverts that are located within the project limits that were located in January of 2018. The culverts should be inspected by the designer to determine if they should be replaced with this project.

Drainage

Existing Drainage through the project is primarily through sheet flow away from the road into storm sewers and roadside ditches. No known drainage problems exist in the project area. The proposed drainage through the project will be primarily sheet flow to roadside ditches and into storm sewers.

Railroads

No active railroads are present within the project limits.

Traffic & Crash InformationTraffic Data

The table below shows the data provided.

TRAFFIC DATA			
Year	AADT (VPD)	DHV	TRUCK AADT
2017	3,704	341	687
2023	3,871	357	718
2033	4,149	382	770
2043	4,427	408	821

Crash Data & Analysis

Based on a review of the Aries database 2012 to 2017 there were crashes near the project nor within the project limits along SR 14. The table below is a summary of the crashes. There is not any locations within the project limits that have a high number of crashes and the majority of crashes involved deer. Therefore no safety improves besides the installation of centerline rumble strips are recommended.

Year	Total Crashes	Fatality or Incapacitating	Injury	Property Damage	Manner of Collision									
					Head On	Left/Right Turn	Non-Collision	Opposite Sideswipe	Same Direction	Ran Off Road	Rear End	Right Angle	Animal	Other
2012	19	0	0	19	0	0	0	0	1	2	0	2	14	0
2013	28	3	2	23	1	1	0	0	0	4	1	3	18	0
2014	22	0	3	19	0	2	1	0	0	4	3	3	9	0
2015	28	1	0	27	0	1	0	0	2	5	2	0	18	0
2016	18	3	0	15	0	1	0	0	1	3	1	2	10	0
2017	24	0	0	24	0	0	0	0	1	4	1	2	16	0

Alternatives and Recommendations

Alternate A: Do Nothing

This alternate would allow the existing roadway and structures to remain in place with no improvements. This alternative will result in continued deterioration of the bridge, and continued hydraulic inadequacy. This alternative meets none of the needs and purposes of the project and will not be considered further.

Alternate B: HMA Overlay, Structural

This alternative meets the need and purpose of the project and is the preferred alternative.

Details of Preferred Alternate

Roadway

Milling of the existing mainline and shoulder asphalt 4 inches in depth and paving with 4 inches of HMA from the North Junction of US 35 to the Tippecanoe River. Full Depth Reclamation of the existing pavement and paving with 4 inches of HMA from the Tippecanoe River to SR 17. It is anticipated that full-depth and partial-depth patching will be required and should be included in the contract. The existing superelevated curves should be improved to the current design standards. The existing public road approached shall be milled and paved to the existing right of way in accordance with standard drawing 610-PRAP-01. The existing asphalt private drives, commercial drives, field entrances, and mailbox approaches should be milled and paved in accordance with standard drawing 610-DRIV-21.

Guardrail

The existing guardrail along the Tippecanoe River in Winamac has Type 1 end treatment. SR 14 crosses the Tippecanoe River within the project limits. The existing guardrail at the Tippecanoe River has Type 1

end treatments and should be replaced with OS end treatments. The existing guardrail may require adjustment due to minor changes in profile grade. Guardrail will not require wholesale replacement.

ADA/Curb Ramps

Currently there are only four known ramps within the project limits that will require review for current standards. These ramps are located at the intersections of US 35 and Riverside Dr.

Traffic

The existing sheet signs should be replaced. There are no existing traffic signals within the project limits

Testing Requirements

Falling Weight Deflectometer testing, Pavement Coring, and geotechnical information shall be gathered as per the Limited Geotechnical Investigation Policy and in accordance with IDM 304-13.

This project is proposed to take place in construction year 2023

Cost Estimate

The cost of Alternative C is expected to be \$4,200,000. For more details regarding cost estimation and quantities see the estimate in the Appendix.

Environmental Issues

This project will likely require preparation of a CE Level 1. The District or the District's consultant will prepare an environmental document in accordance with the National Environmental Policy Act, National Historic Preservation Act, and other relevant laws. Because of the anticipated work in the channel, a waterway permit will likely be needed. A final permits determination will be made during design.

No publicly owned parks, recreational areas or historic sites considered as Section 4(f) properties were identified within the project limits. A Section 4(f) analysis will not be necessary as part of the environmental documentation prepared for the project.

A Rule 5 erosion control permit will be needed if 1 acre or more of ground is disturbed. Best management practices will be incorporated into the plans and constructed regardless of whether a Rule 5 permit is needed.

Potential historic properties listed on or eligible for the National Register of Historic Places and the Indiana Register of Historic Sites and Structures are not known to be located within the project vicinity. Based on the Indiana Historic Bridge Inventory Report, 014-66-3459B is listed as not eligible.

This project is expected to have a restriction prohibiting tree clearing from April 1st to September 30th in consideration of the Indiana Bat. This project may also have a restriction prohibiting work in the channel from April 1st through June 30th in consideration of fish spawning season.

Right-of-Way Impact

The existing apparent right of way is 35' either side of centerline based on as-built plans. No deeds or grants were located during a preliminary records search. This project is not expected to require the purchase of temporary right of way or permanent right of way.

Utilities

Based on the site visit and existing plans, various utilities appear to exist within the project limits. There are existing overhead power lines located along the north side of SR 14. A list of potential existing utilities believed to be located within the proposed project limits are provided below. Additional utilities will be identified during the utility coordination for the project that will be performed by INDOT or the designer.

Utility	Contact	Phone Number	Address
CENTURYLINK (CTLCL)	Bruce Emerick	(574) 926 - 1247	213 W LaPorte St Plymouth, IN 46563 joseph.megyesi@sprint.com
FULTON COUNTY R.E.M.C.			
LAKE BRUCE CONSERVANCY DISTRICT			
NIPSCO ELECTRIC (MONTICELLO)	Dave Schaafsma		dschaafsma@nisource.com
NIPSCO ELECTRIC (PLYMOUTH)	Dave Schaafsma		dschaafsma@nisource.com
NIPSCO GAS (MONTICELLO)	Dave Schaafsma		dschaafsma@nisource.com
NIPSCO GAS (PLYMOUTH)	Dave Schaafsma		dschaafsma@nisource.com
PULASKI WHITE RURAL TELEPHONE COOP DBA LIGHTSTREAM	Brent Gillum	(574) 278 - 7121	PO Box 408 306 S. State Road 39 Buffalo, IN 47925 bgillum@pwrtc.net

Traffic Maintenance During Construction

The proposed treatment (Full Depth Reclamation) is best done under detour of the entire roadway or a one way detour for local traffic only. Due to the existing roadway having narrow paved shoulders (less than three feet in width), the width of the roadway does not safely facilitate one active lane through the work zone. No state route parallel to SR 14 exists within 12 miles of SR 14 west of SR 17. Recommend utilizing a local road detour route. Construction should be coordinated with the town of Winamac and Pulaski Memorial Hospital to avoid potential conflicts.

Other Projects

Des #	Contract #	Work Type	Location
1172237	R-41024	Small Structure Replacement	SR 14 1.68 mi E of US 35 N jct
1298551	R-36673	Small Structure Maint and Repair	SR 14 2.1 mi E of Jct SR 17
1383717	R-37730	Small Structure Maint and Repair	SR 14 3.9 mi E of SR 17
1593257	R-37687	HMA Overlay, Preventive Maintenance	SR 14 From SR 39 to US 35
1702103	R-40604	Small Structures & Drains Construction	SR 14 4.37 mi W of US 35
1800182	RS-41443	HMA Overlay, Structural	SR 14 From the N Jct of US 35 to SR 17 - FDR
1800776	B-41211	Bridge Painting	SR 14 @.-TIPPECANOE RIVER, 0.65mi E of US 35

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1/16/20

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